Figure 1

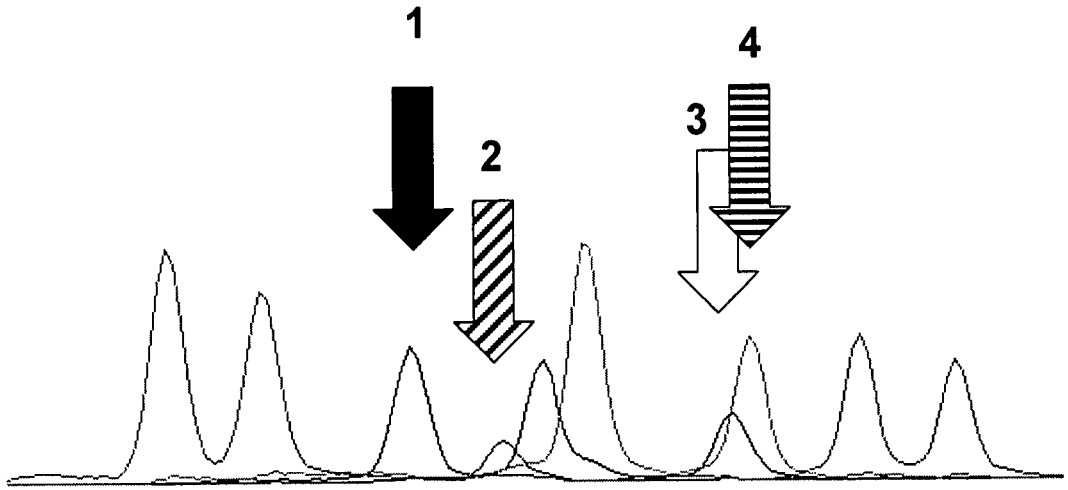


Figure 2

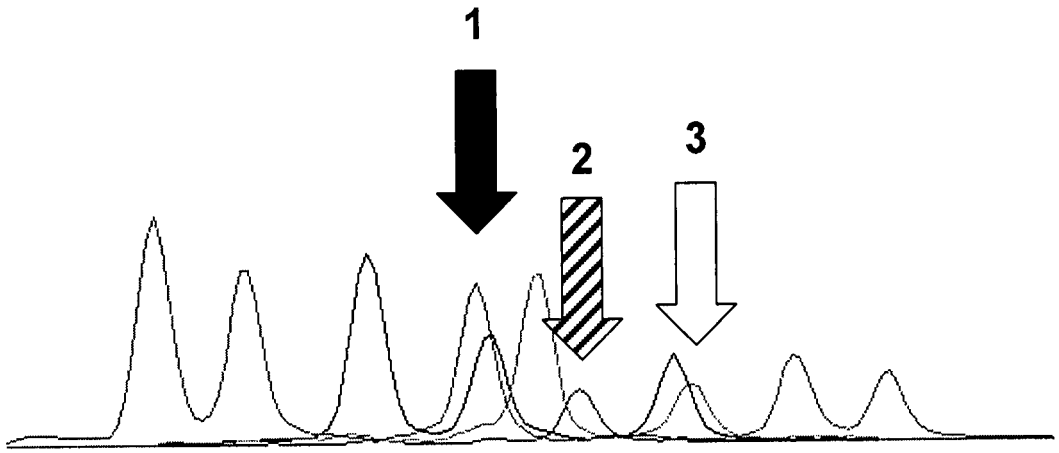


Figure 3

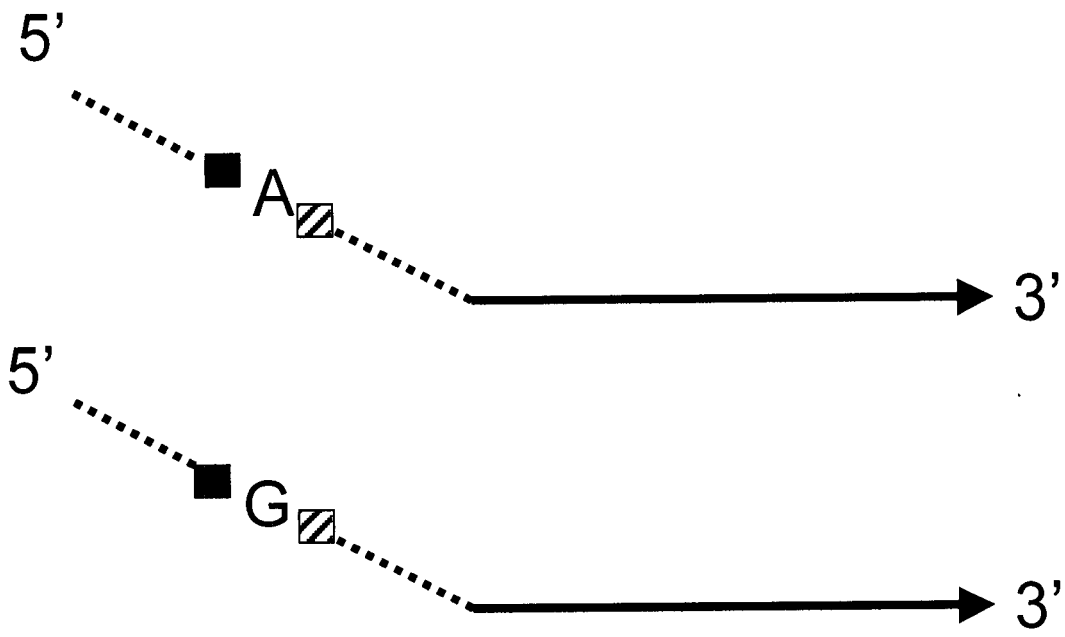


Figure 4

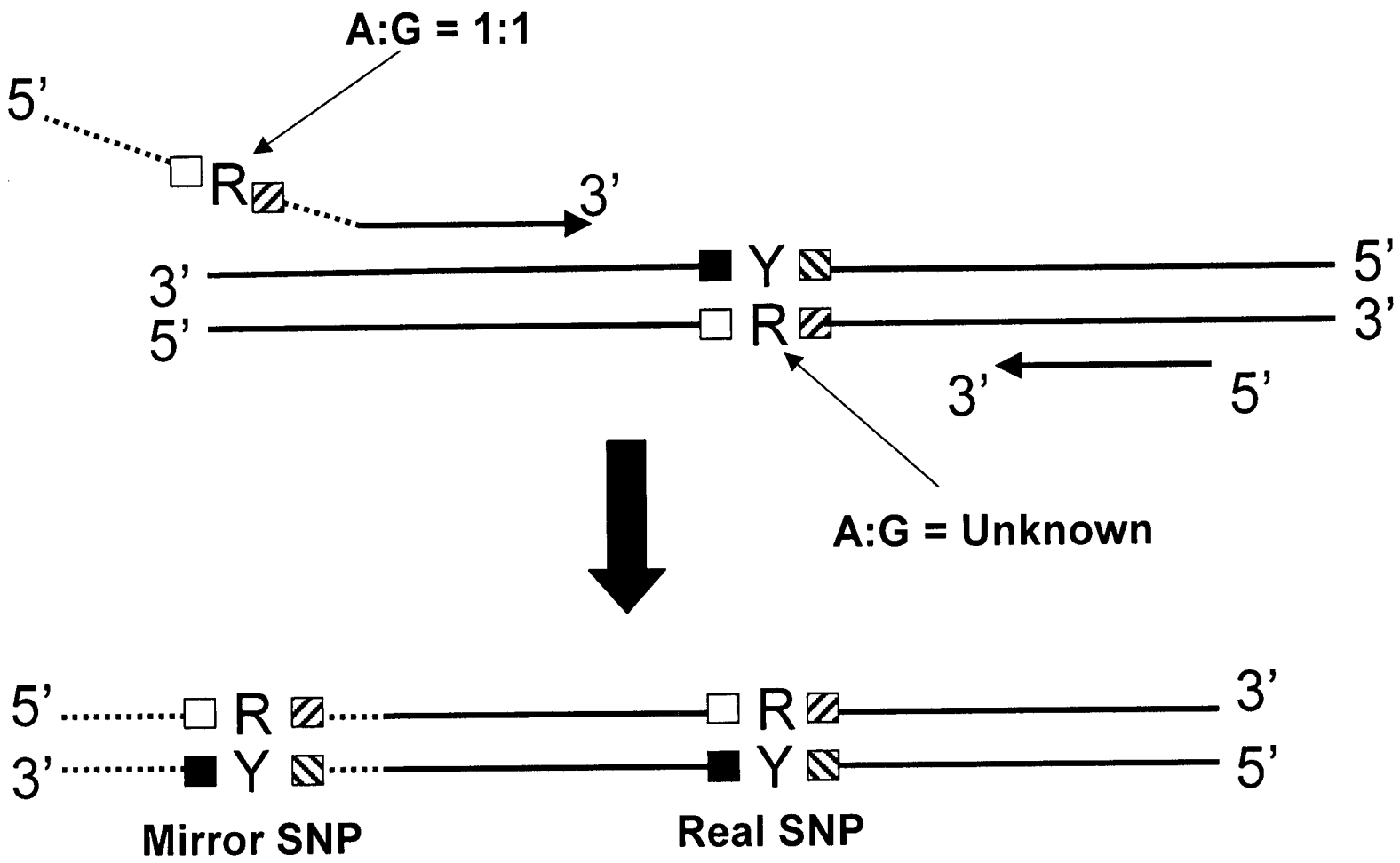


Figure 5

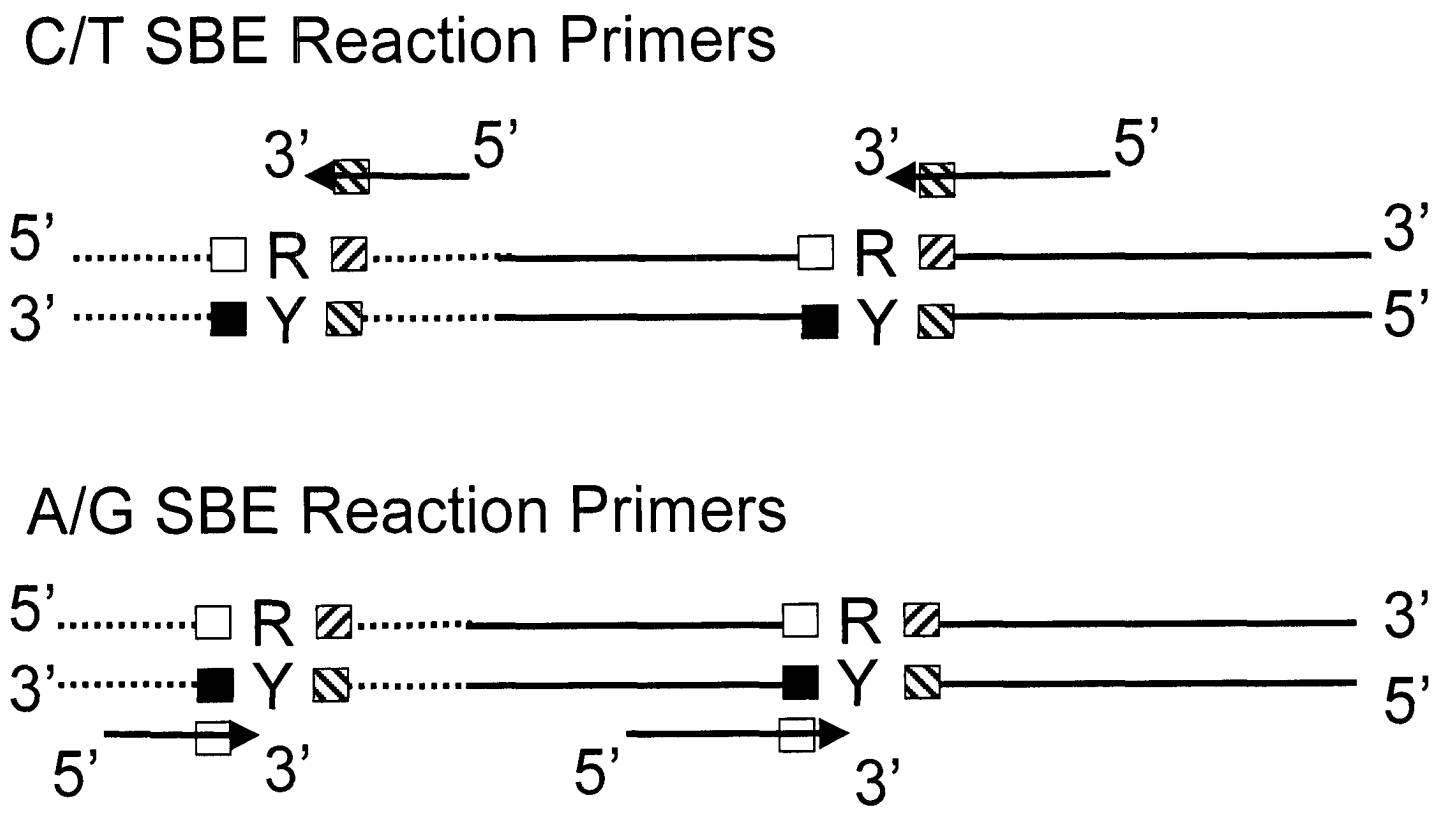

C/T SBE Reaction Primers
3'
5'
3'
5'
5'
R
R
3'
3'
Y
Y
5'
A/G SBE Reaction Primers
5'
R
R
3'
3'
Y
Y
5'
5'
3'
5'
3'

Figure 6

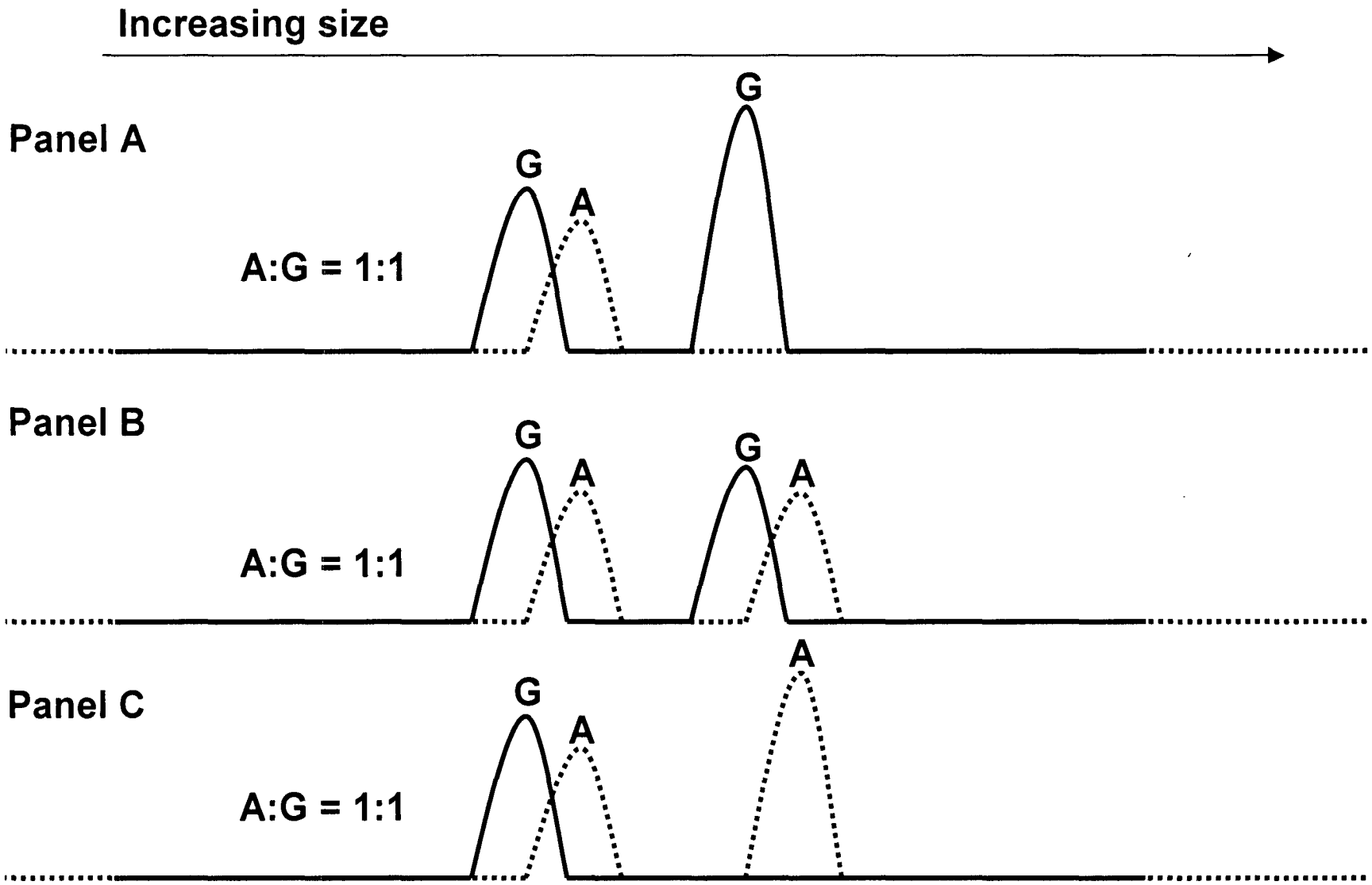

Increasing size
Panel A
A:G = 1:1
G
A
G
Panel B
A:G = 1:1
G
A
G
A
Panel C
A:G = 1:1
G
A
A

Figure 7

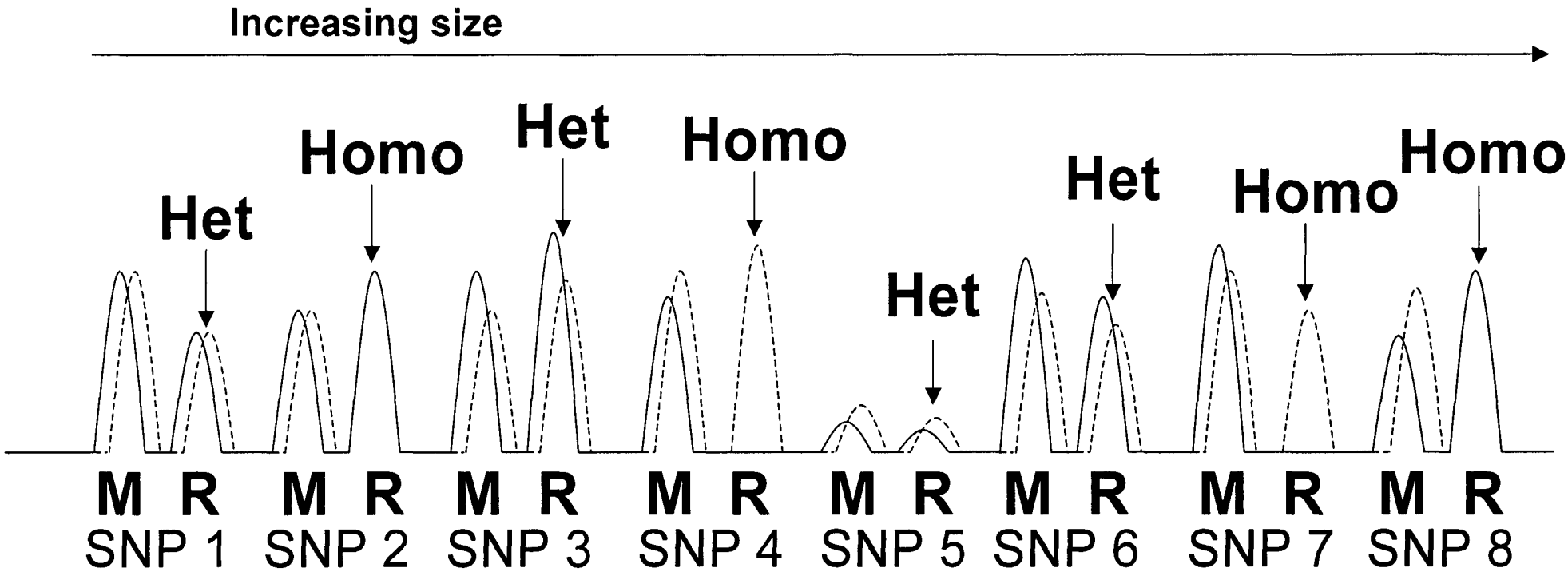

Increasing size
Het
Homo
Het
Homo
Het
Homo
Homo
M R
SNP 1
M R
SNP 2
M R
SNP 3
M R
SNP 4
M R
SNP 5
M R
SNP 6
M R
SNP 7
M R
SNP 8

Figure 8

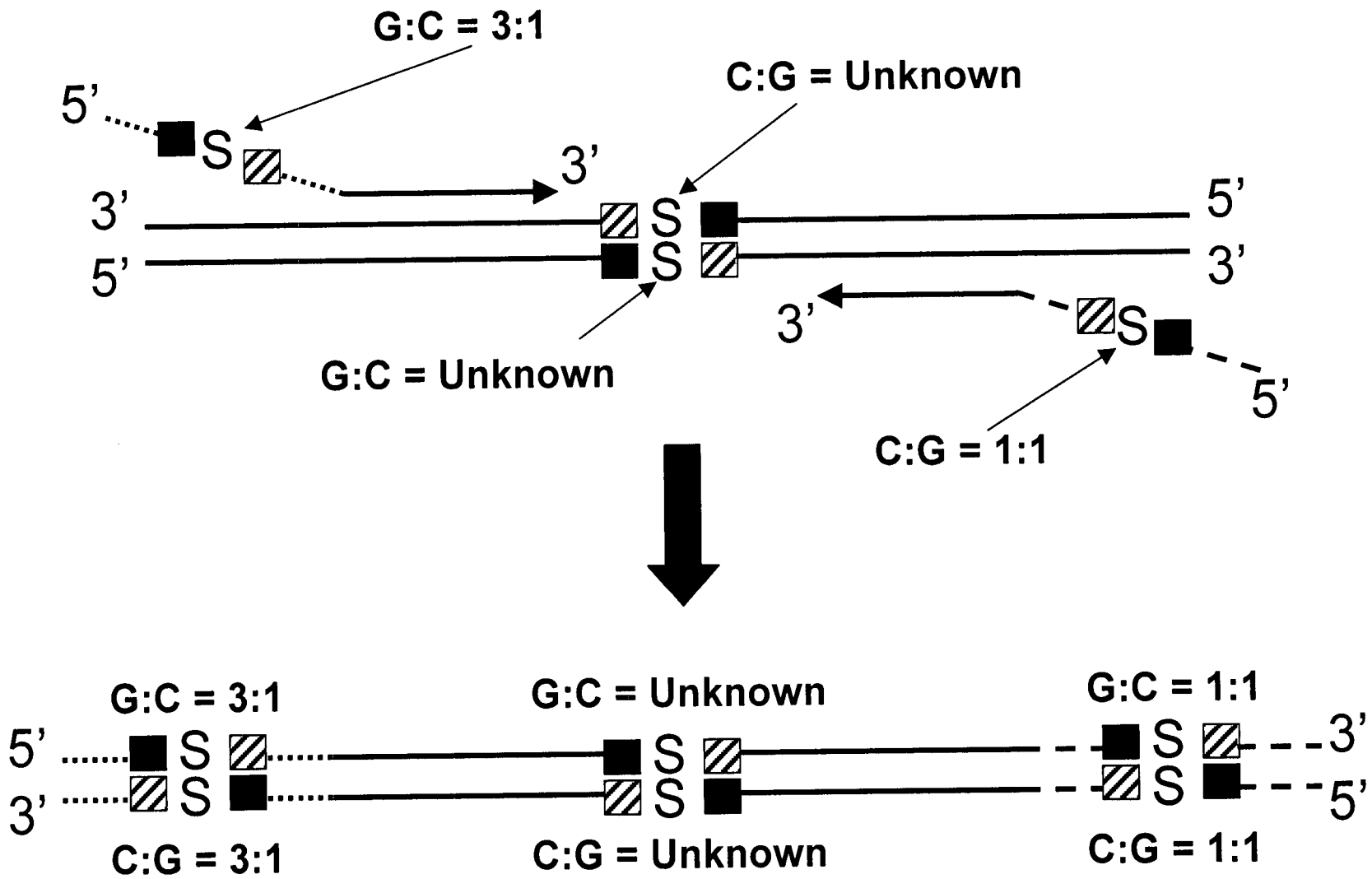

G:C = 3:1
C:G = Unknown
5'
S
3'
3'
5'
S
S
5'
3'
3'
S
5'
G:C = Unknown
C:G = 1:1
G:C = 3:1
G:C = Unknown
G:C = 1:1
5'
3'
S
S
S
S
S
S
3'
5'
C:G = 3:1
C:G = Unknown
C:G = 1:1

Figure 9

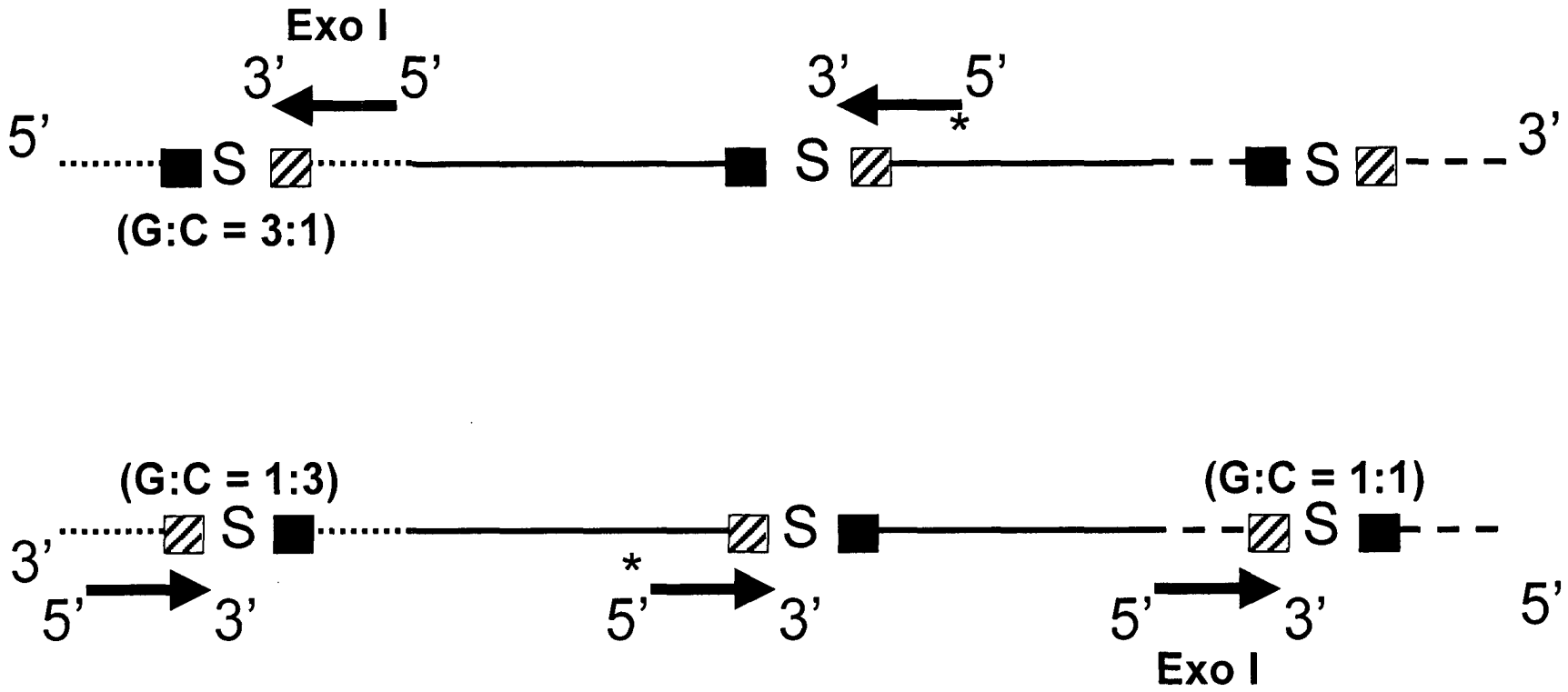


Figure 10

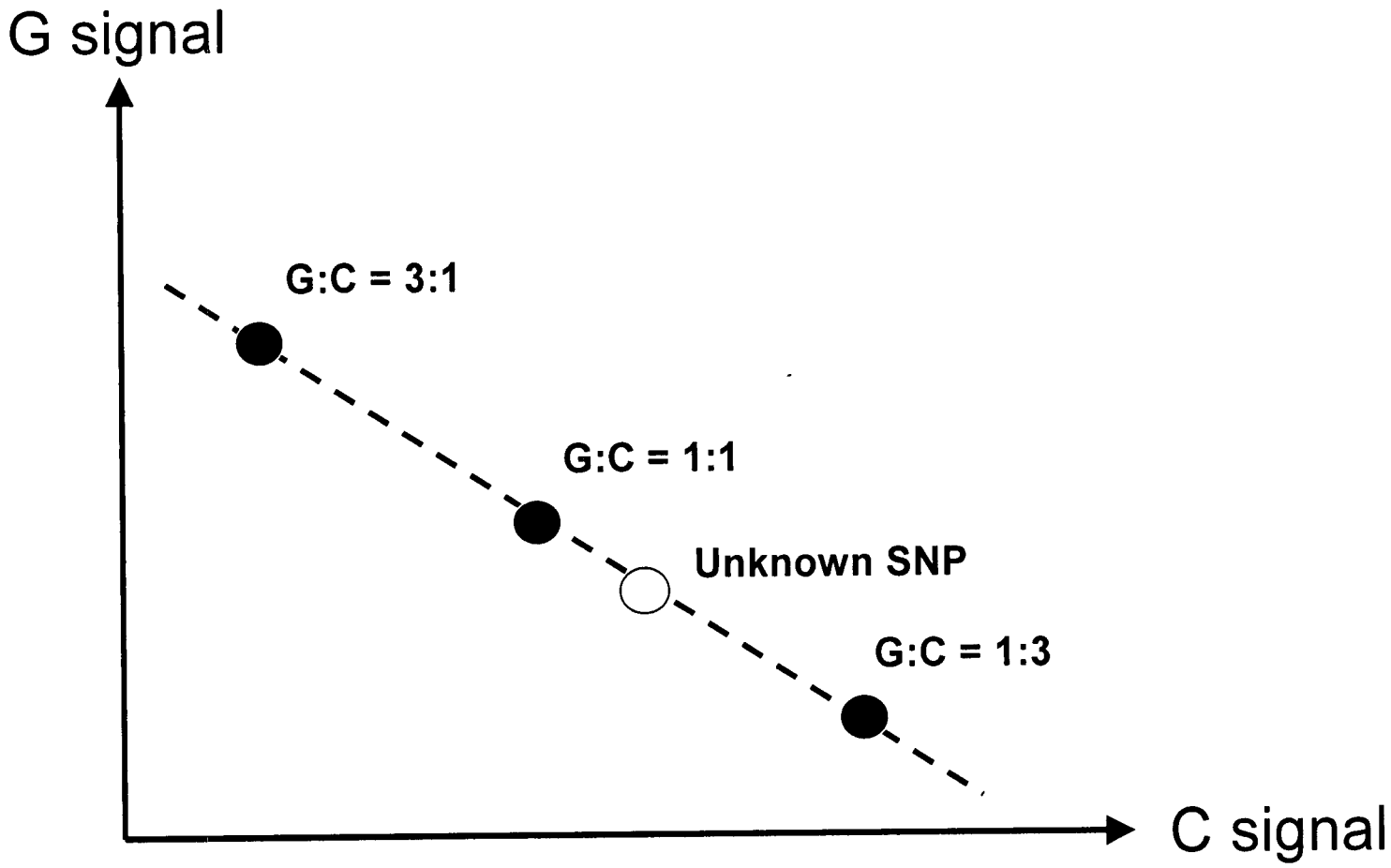


Figure 11

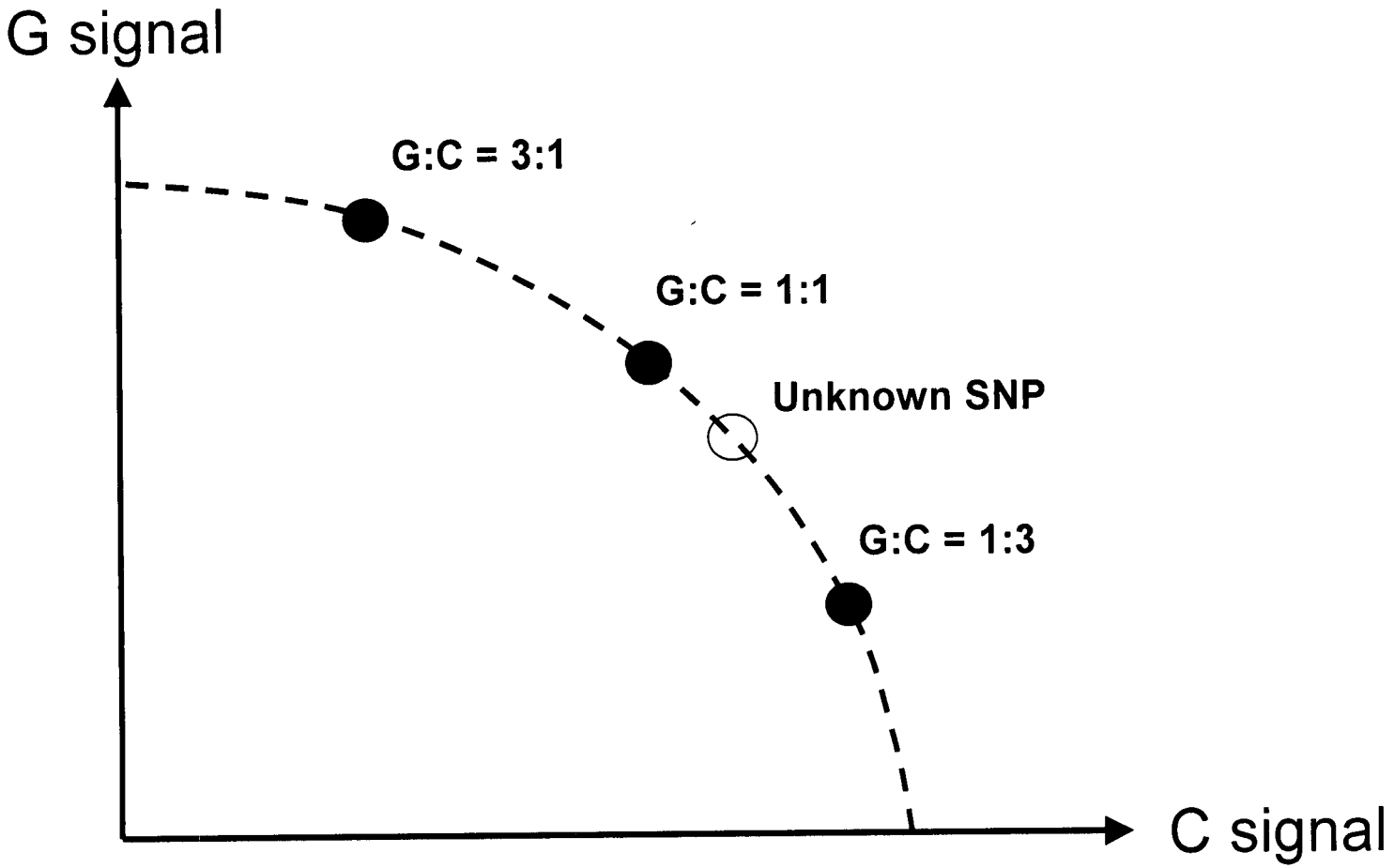


Figure 12

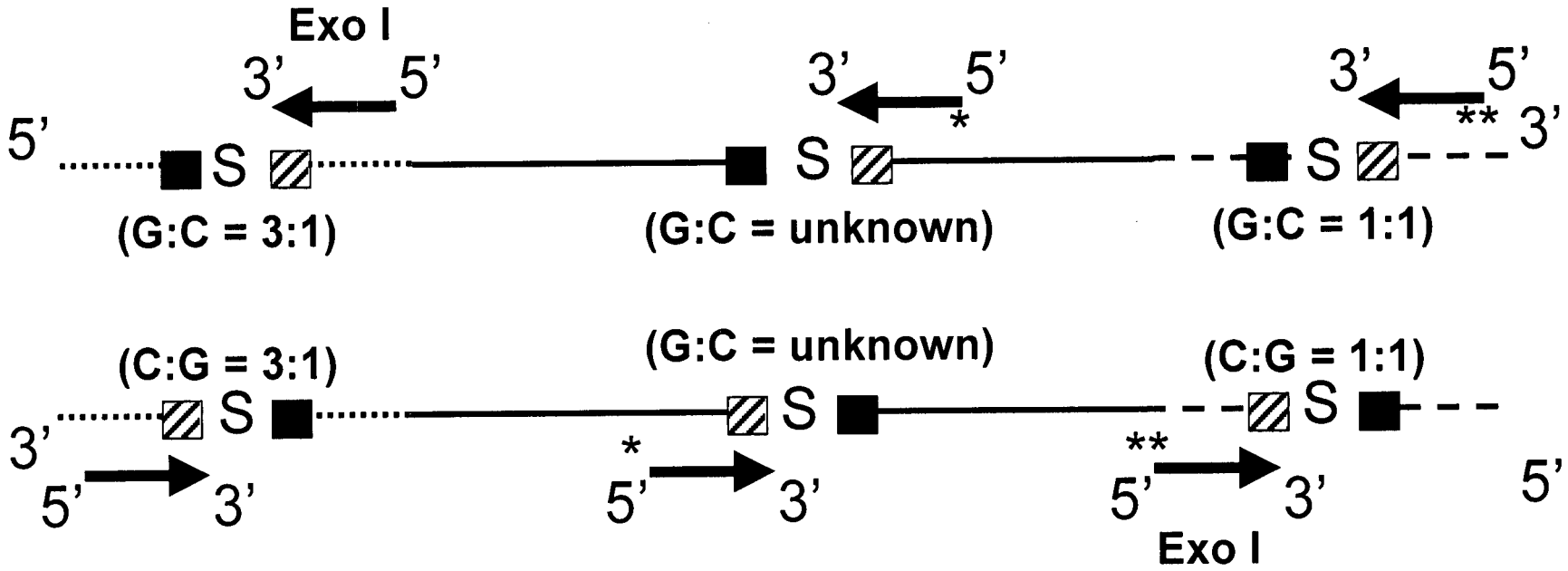

Exo I
3'
5'
5'
S
(G:C = 3:1)
3'
5'
*
S
(G:C = unknown)
3'
5'
**
3'
S
(G:C = 1:1)
(C:G = 3:1)
3'
S
5'
3'
(G:C = unknown)
*
S
5'
3'
(C:G = 1:1)
**
S
5'
3'
5'
Exo I

Figure 13

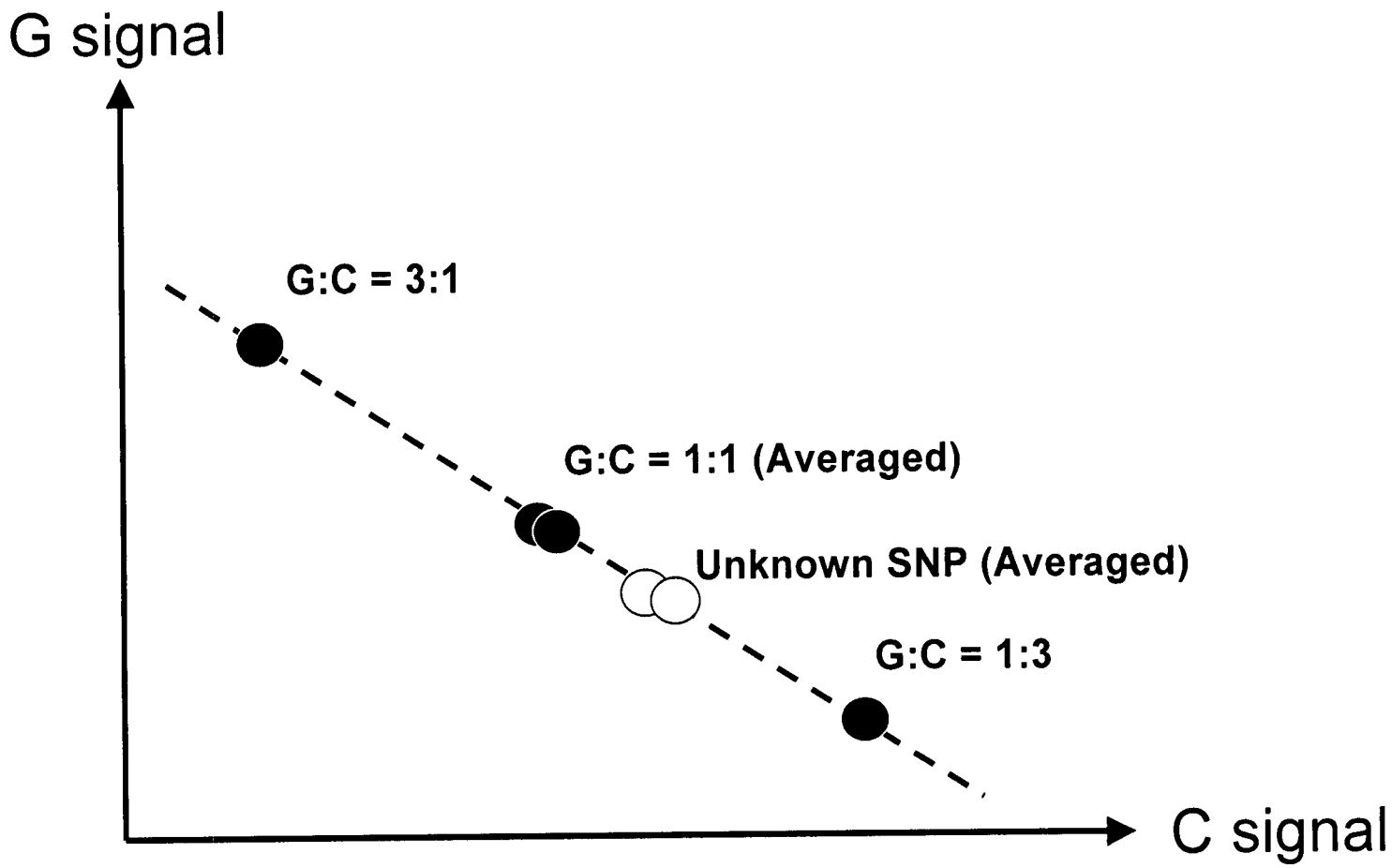

G signal
G:C = 3:1
G:C = 1:1 (Averaged)
Unknown SNP (Averaged)
G:C = 1:3
C signal

Figure 14

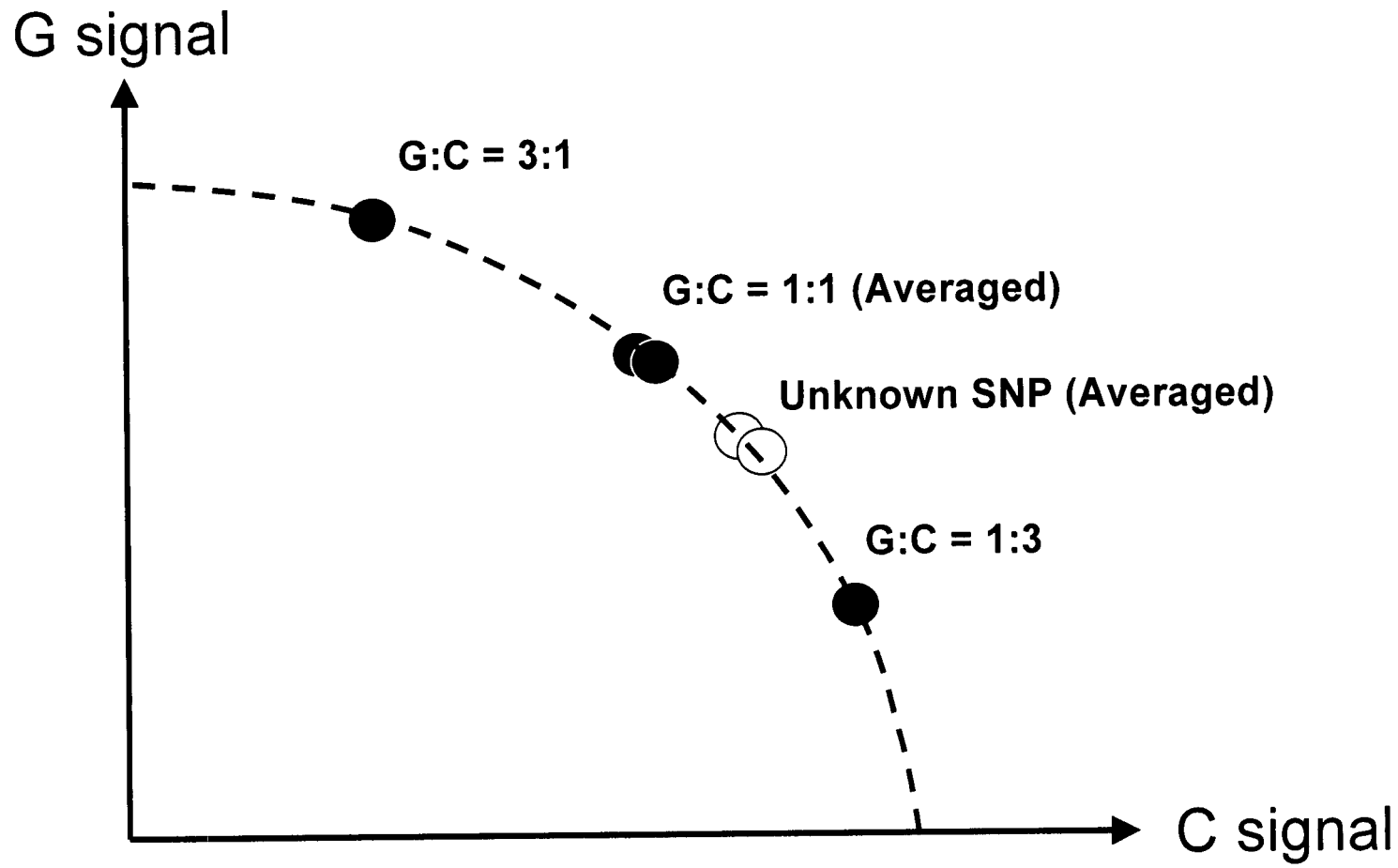

G signal
G:C = 3:1
G:C = 1:1 (Averaged)
Unknown SNP (Averaged)
G:C = 1:3
C signal

Figure 15

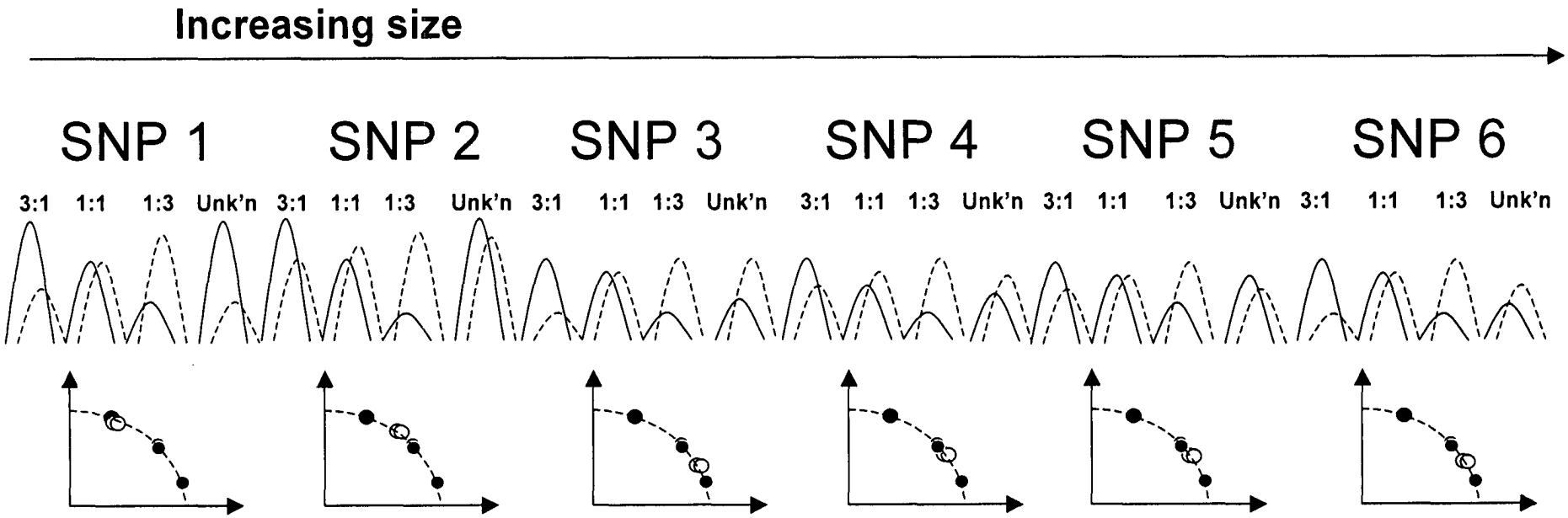

Increasing size
SNP 1
SNP 2
SNP 3
SNP 4
SNP 5
SNP 6
3:1 1:1 1:3 Unk'n 3:1 1:1 1:3 Unk'n 3:1 1:1 1:3 Unk'n 3:1 1:1 1:3 Unk'n 3:1 1:1 1:3 Unk'n 3:1 1:1 1:3 Unk'n

Figure 16

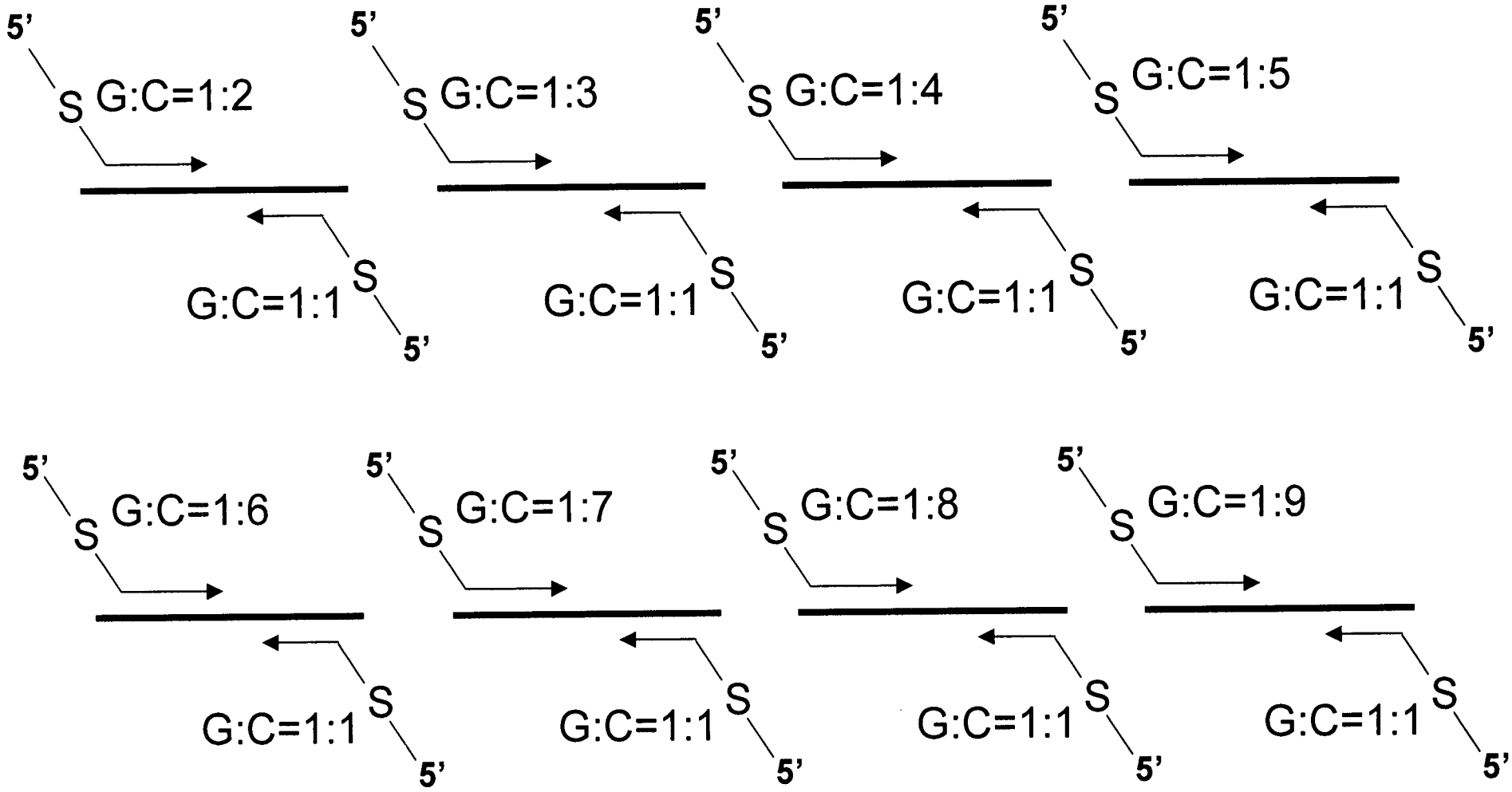
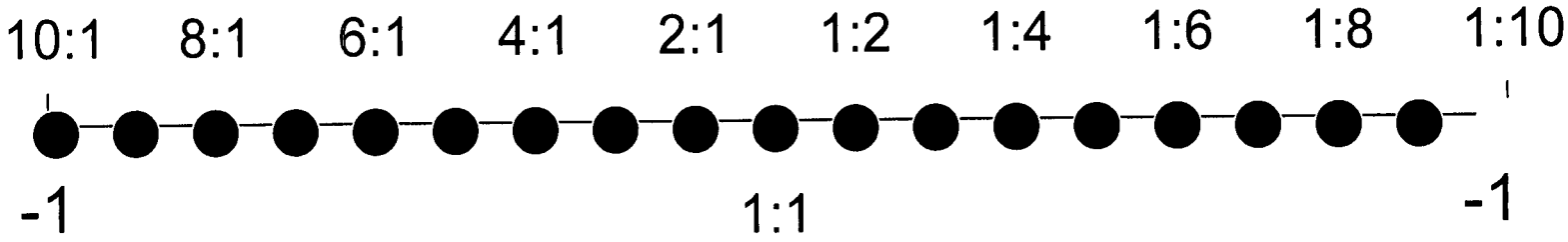

5'
S
G:C=1:2
G:C=1:1
S
5'
5'
S
G:C=1:3
G:C=1:1
S
5'
5'
S
G:C=1:4
G:C=1:1
S
5'
5'
S
G:C=1:5
G:C=1:1
S
5'
5'
S
G:C=1:6
G:C=1:1
S
5'
5'
S
G:C=1:7
G:C=1:1
S
5'
5'
S
G:C=1:8
G:C=1:1
S
5'
5'
S
G:C=1:9
G:C=1:1
S
5'

Figure 17

Linear relationship



Logarithmic relationship

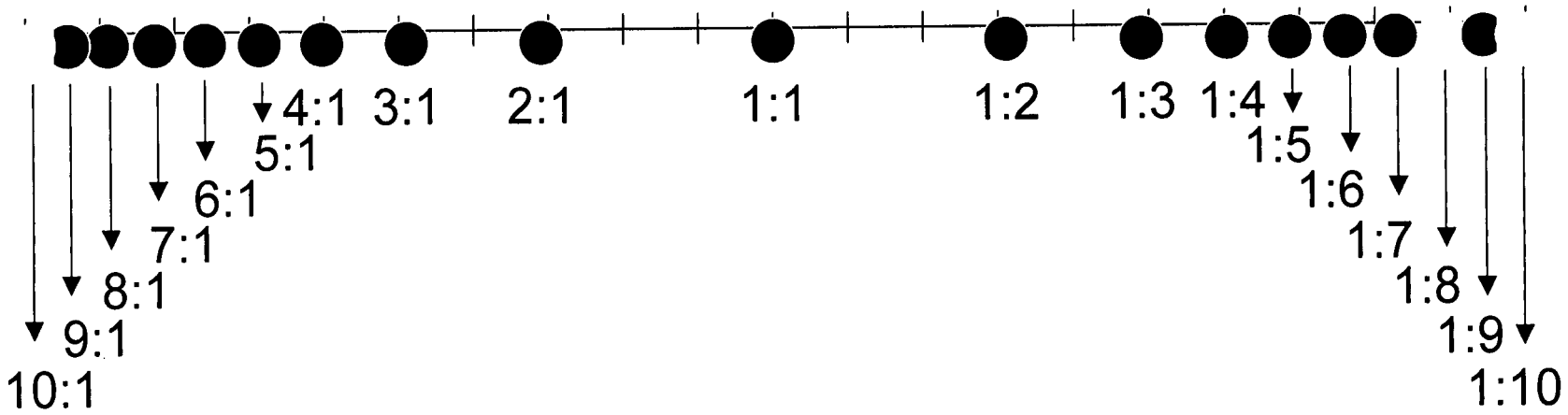


Figure 18

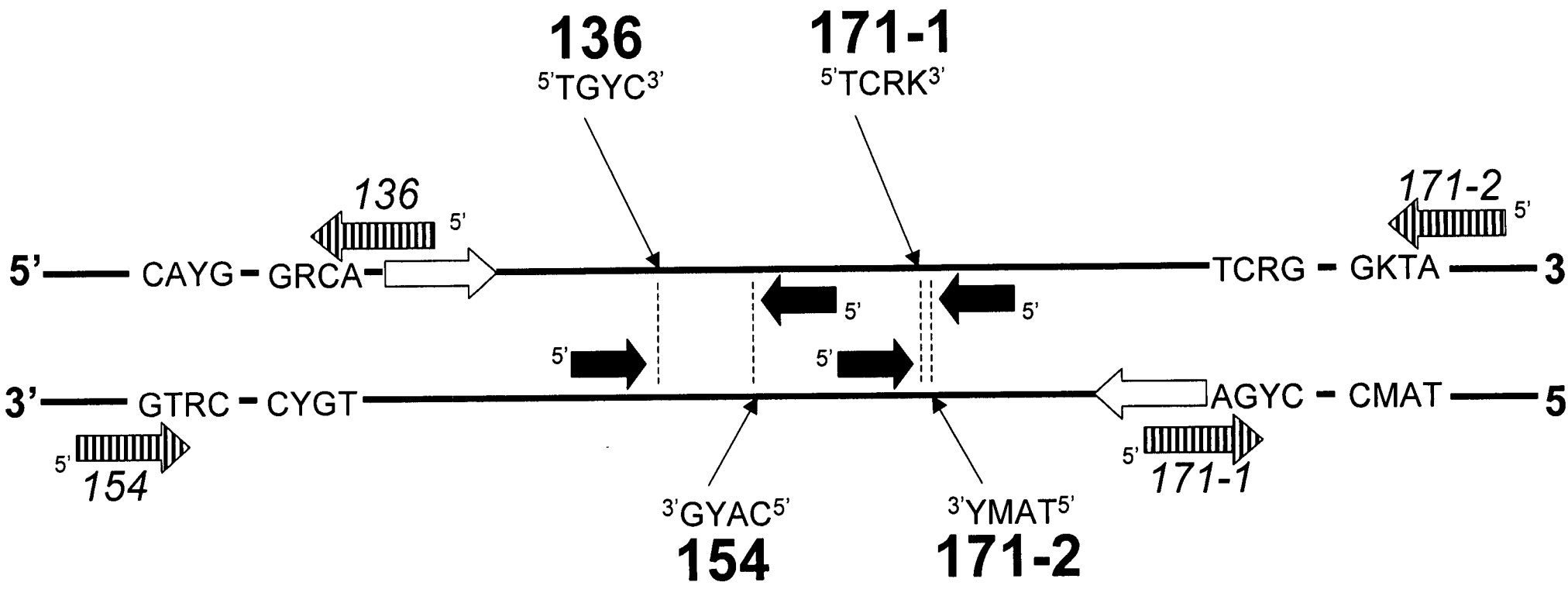

136
5'TGYC3'
171-1
5'TCRK3'
136
5'
171-2
5'
5'
CAYG - GRCA
TCRG - GKTA
3
5'
5'
5'
3'
GTRC - CYGT
AGYC - CMAT
5
5'
154
5'
171-1
3'GYAC5'
154
3'YMAT5'
171-2

Figure 19

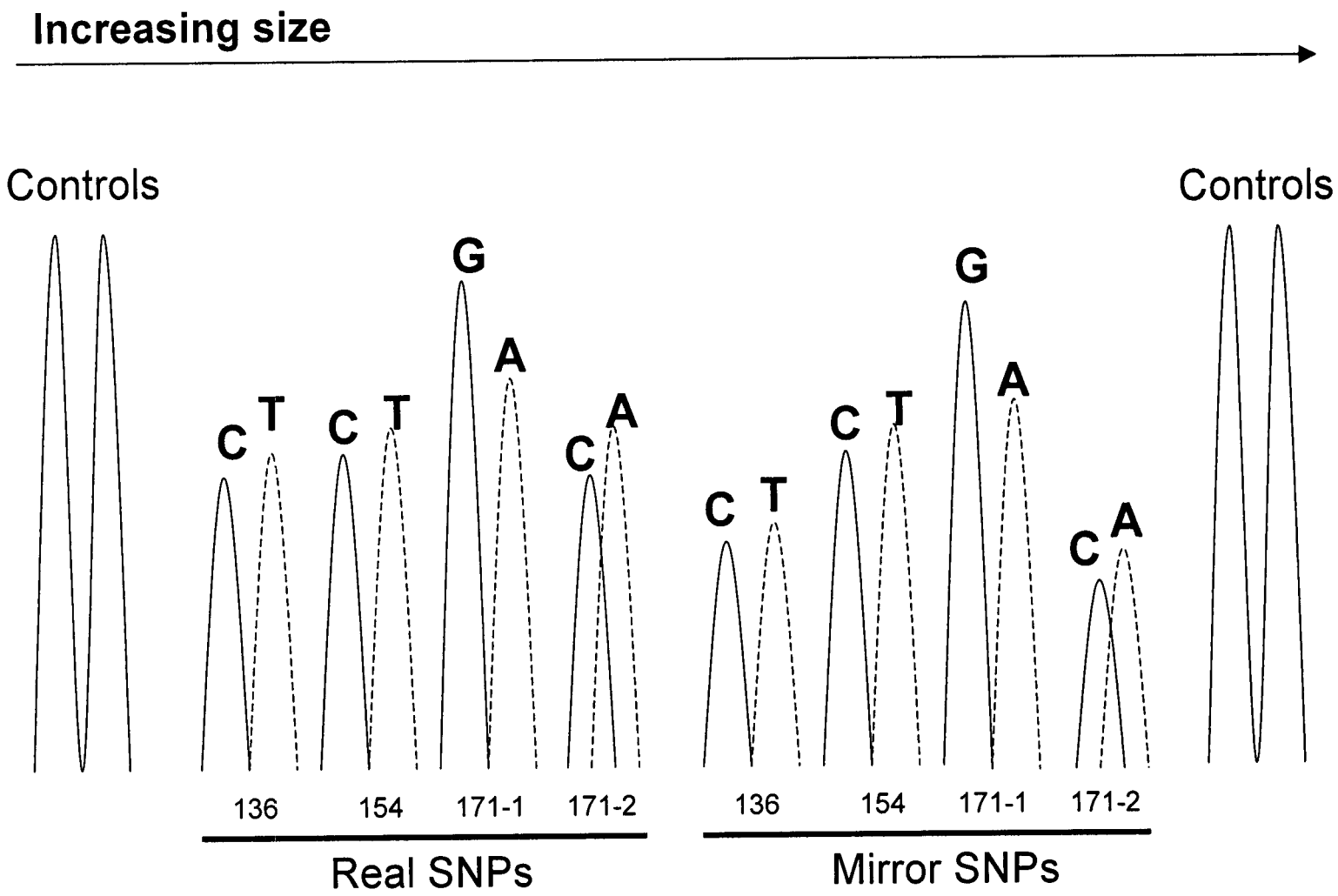

Increasing size
Controls
Controls
C
T
C
T
G
A
C
A
C
T
C
T
G
A
C
A
136
154
171-1
171-2
136
154
171-1
171-2
Real SNPs
Mirror SNPs

Figure 20

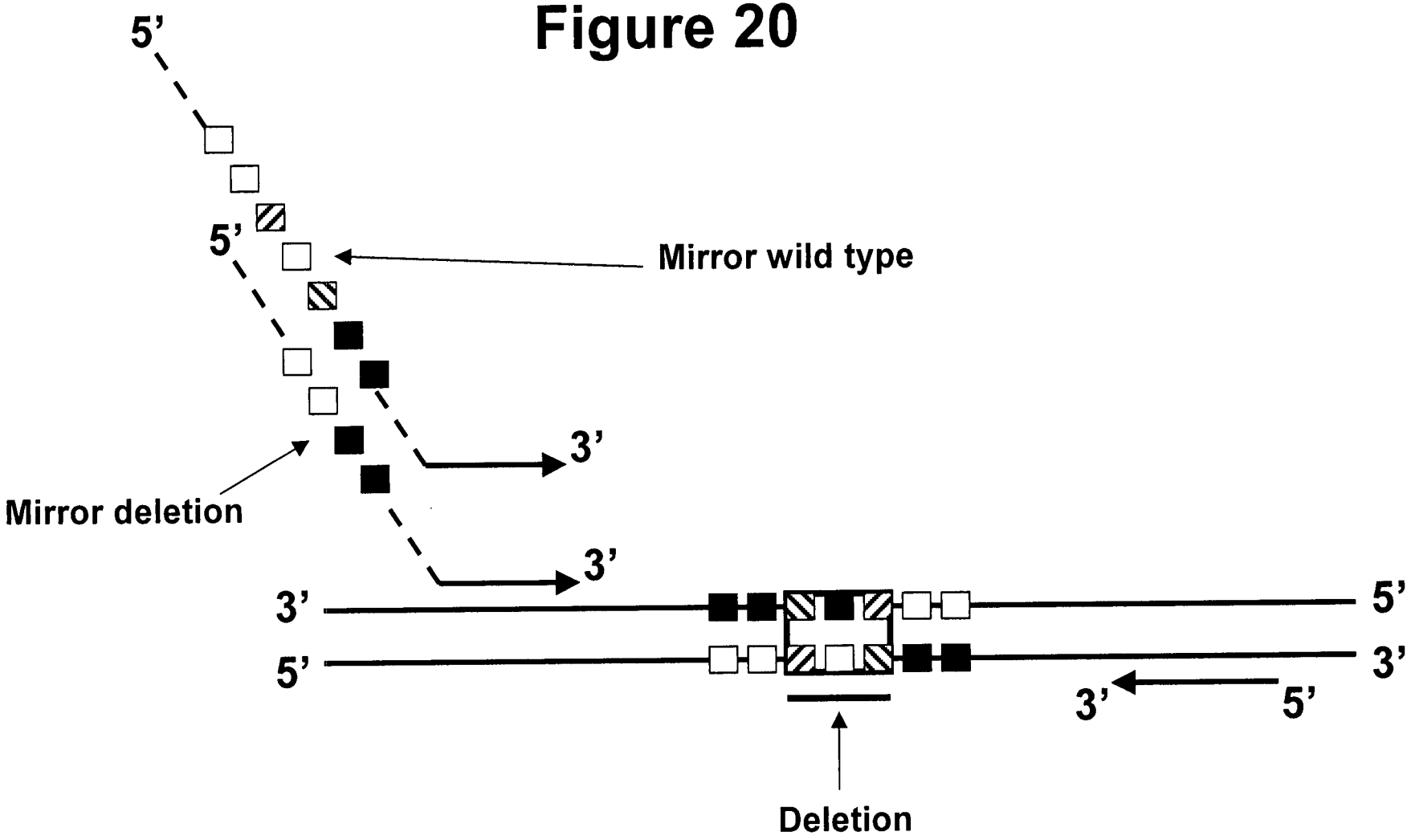


Figure 21

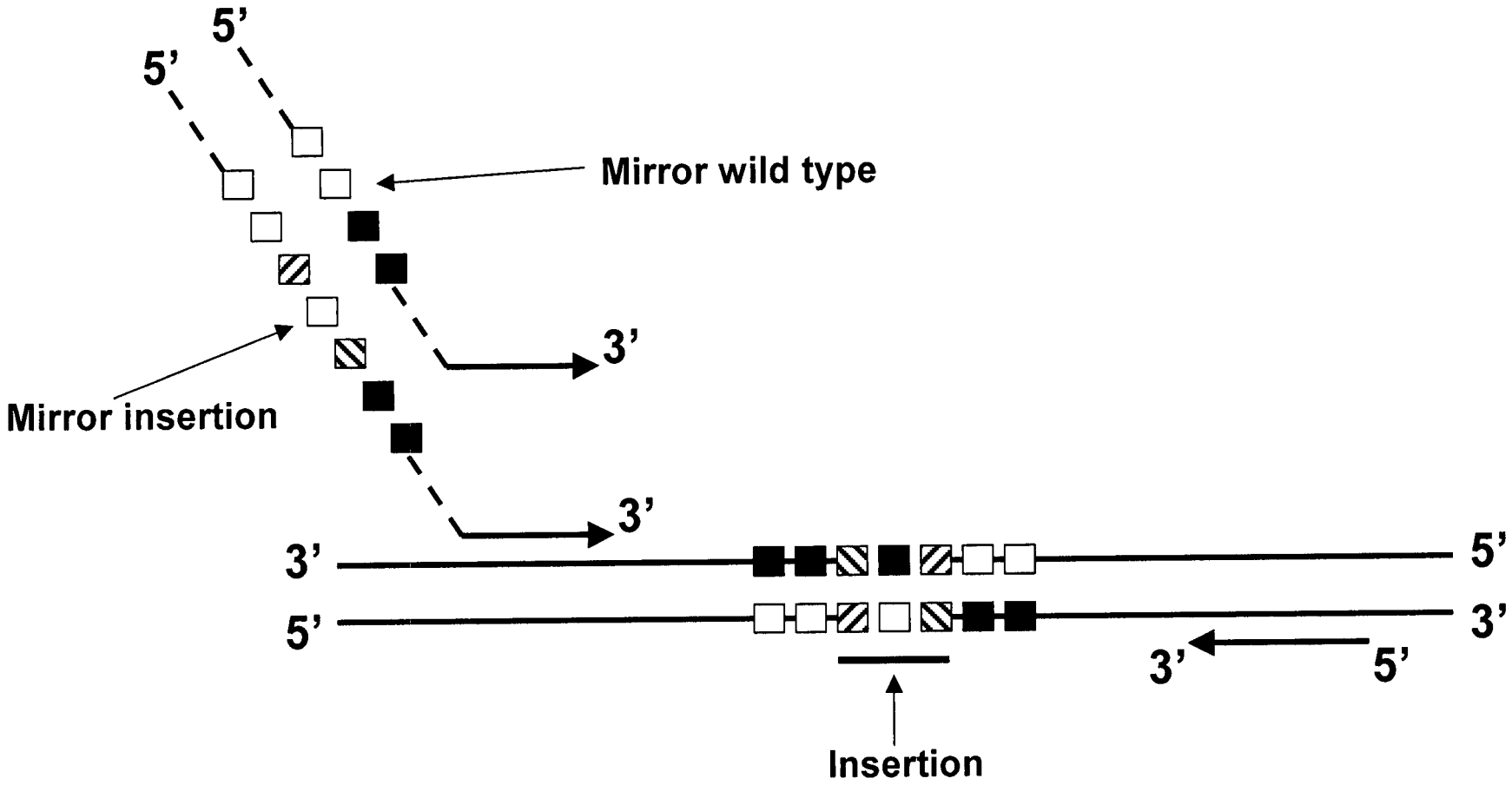


Figure 22

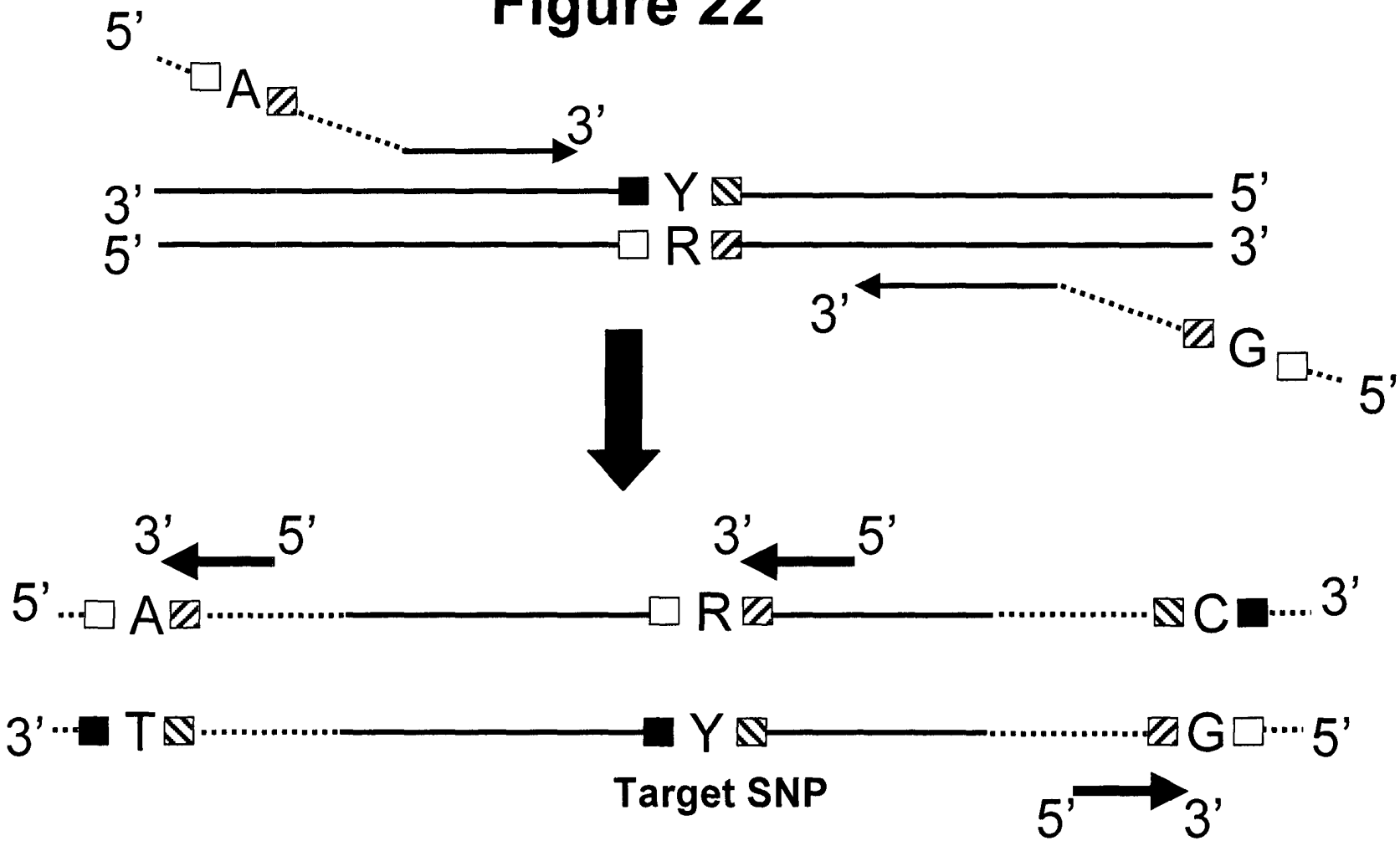


Figure 23

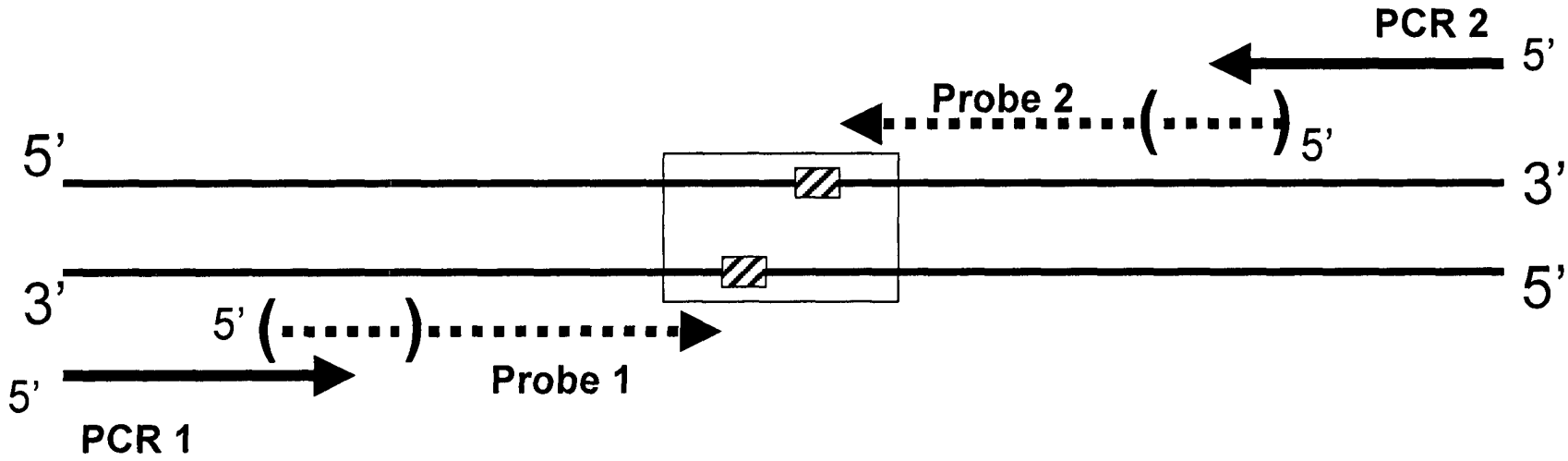


Figure 24


TGAGGTTGCGTCTCAACTCAGTGGCAGG 5
5'
ACTGGTCCTCGAACCCGCATCAGTG
5' CATCCCTGTAGCGATCACAACCGATAGCATTGGTCATCTGTGAGTCAGCTGACCAGGAGCTTGGGCGTAGTCACTCCAACGCAGAGTTGAGTCACCGTCC 3
3' GTAGGGACATCGCTAGTGTTGGCTATCGTAACCAGTAGACACTCAGTCGACTGGTCCTCGAACCCGCATCAGTGAGGTTGCGTCTCAACTCAGTGGCAGG 5
5' AACCGATAGCATTGGTCATCTGTGAGTCA
5' CATCCCTGTAGCGATCACAACCGATAGCAT

Figure 25

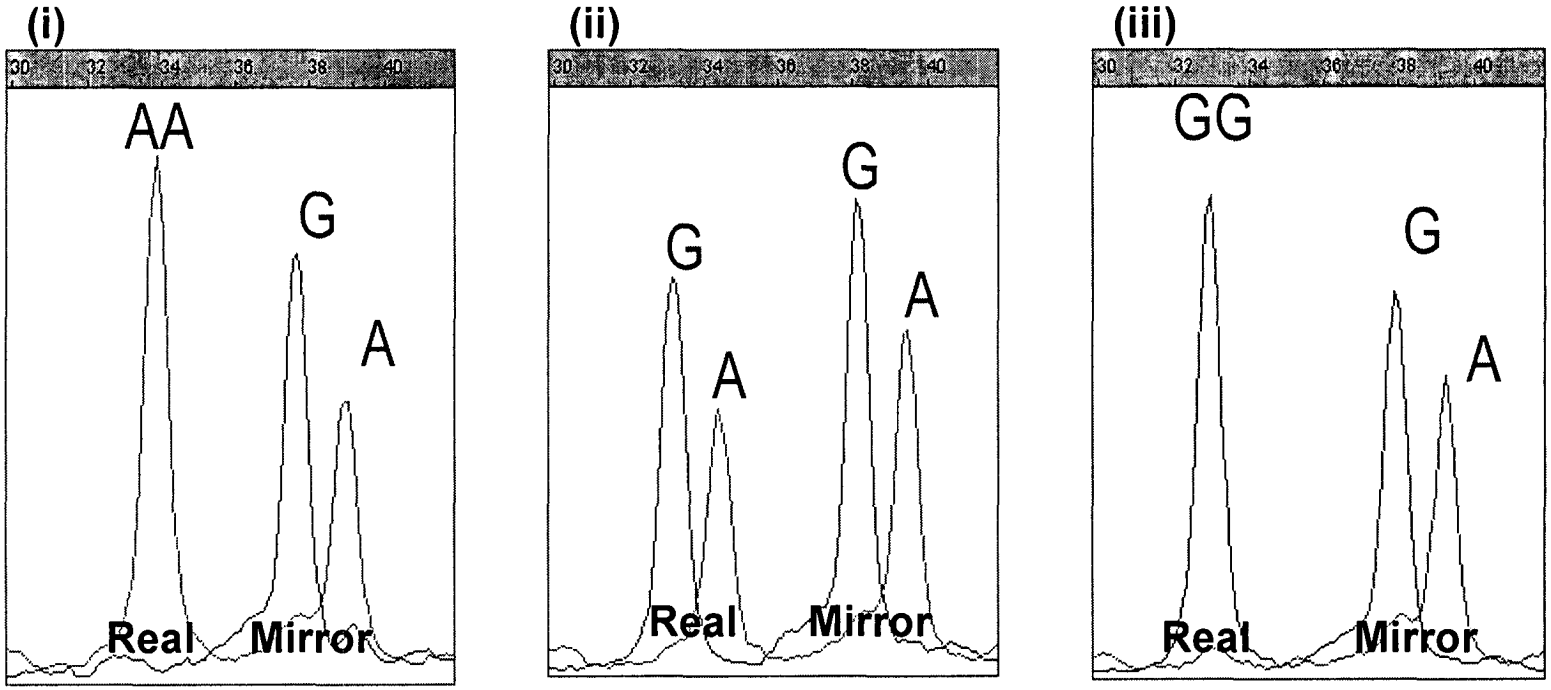

(i)
30
32
34
36
38
40
AA
G
A
Real
Mirror
(ii)
30
32
34
36
38
40
G
A
G
A
Real
Mirror
(iii)
30
32
34
36
38
40
GG
G
A
Real
Mirror

Figure 26

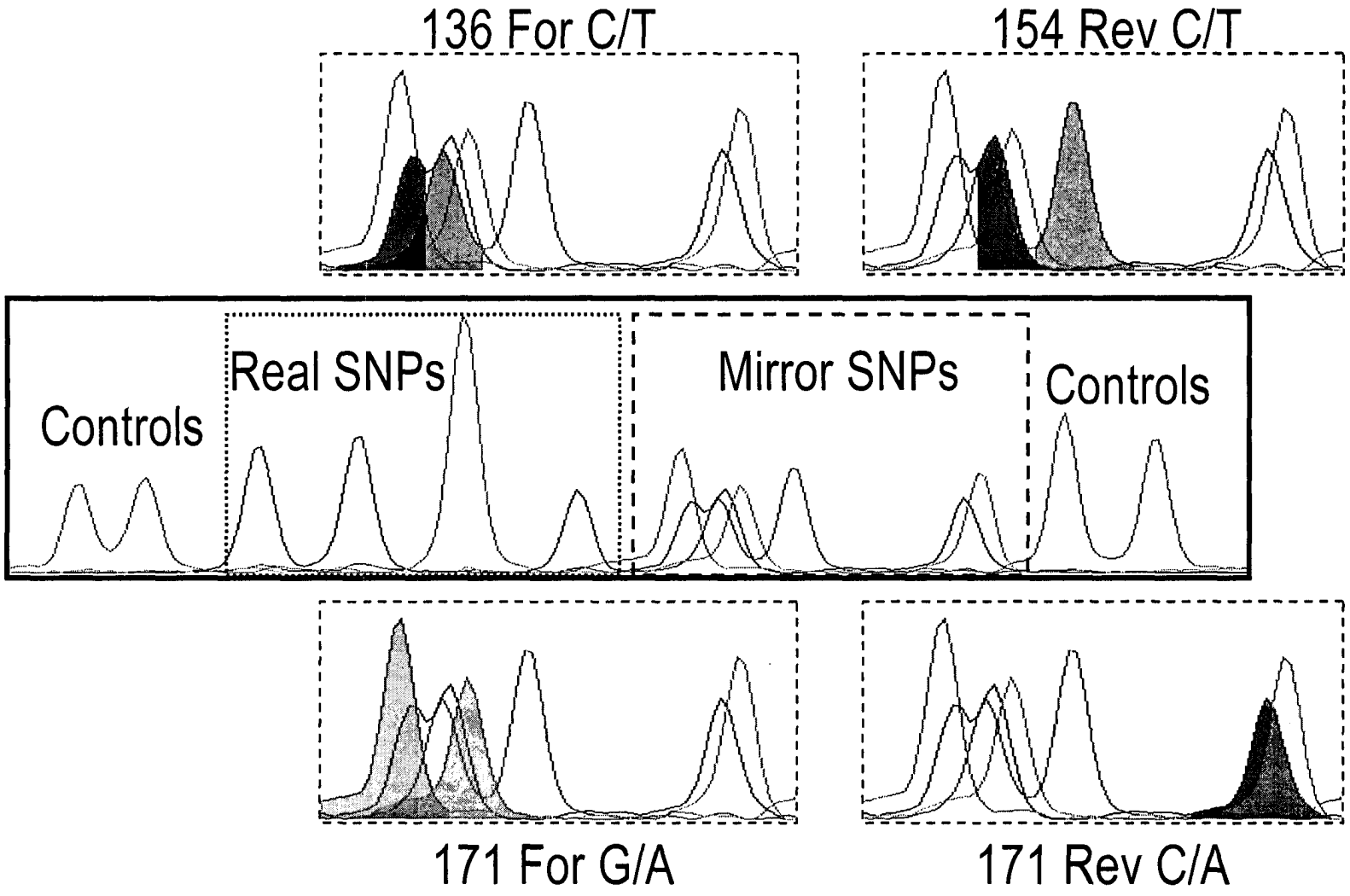
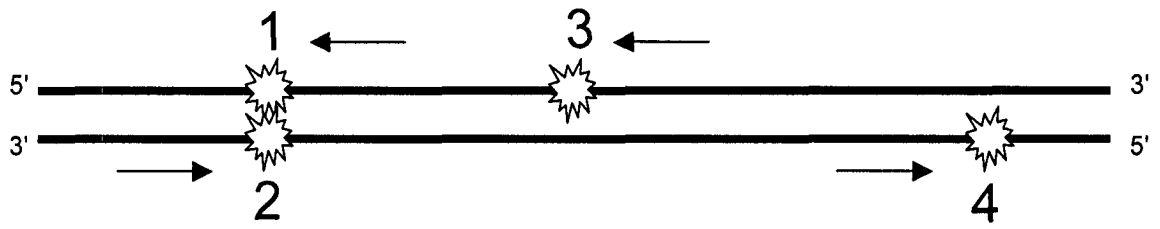

136 For C/T
154 Rev C/T
Controls
Real SNPs
Mirror SNPs
Controls
171 For G/A
171 Rev C/A

Figure 27



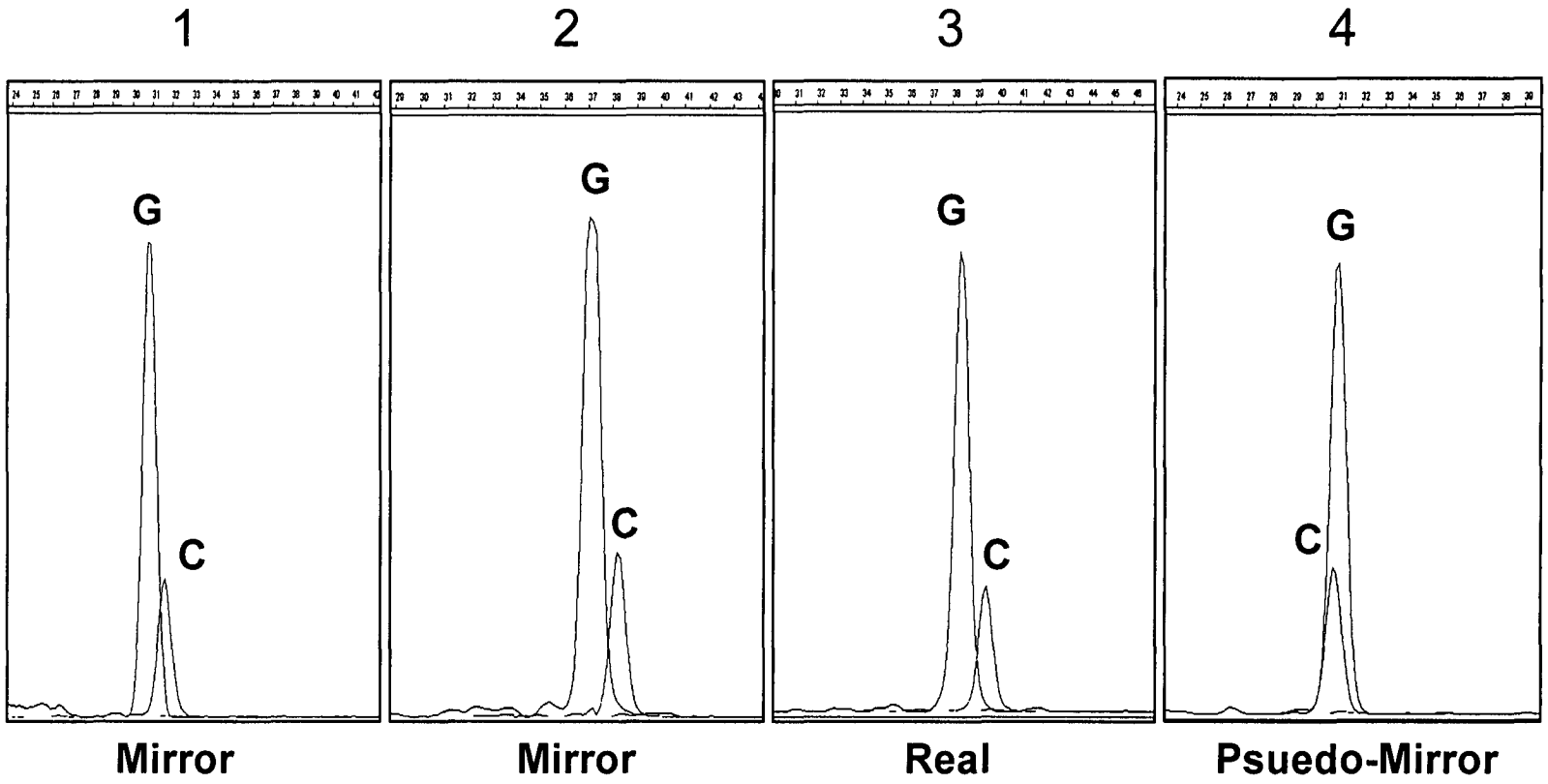


Figure 28

caaggtg
gtagccacag tcagtggaac aagcccagta agccaaaaac caacatgaag catgtggcag
gagctgctgc agctggagca gtggtagggg gccttggtgg ctacatgctg ggaagtgYca
tgagcaggcc tcttatacat tttggcaatg actatgagga ccgttactat cRtgaaaaca
tgtaccgtta ccccaaccaa gtgtactaca gaccagtgga tcRKtatagt aaccagaaca
actttgtgca tgactgtgtc aacatcacag tcaagcaaca cacagtcacc accaccacca
agg
(SEQ. ID NO. 43)

Figure 29

gtcagcccca tggtggtggc tggggacagc cacatggtgg tggaggctgg ggt**caaggtg**

gtagccacag tcagtggaac aagcccagta agccaaaaac caacatgaag *catgtggcag*
(t,ttt)

136
*gagctgctgc a*gctggagca gtggtagggg gccttggtgg ctacatgctg ggaagtgcca (A)
t (V)

154
tgagcaggcc *tcttatacat tttggcaatg actatgagga* ccgttactat cgtgaaaaca (R)
(ttttt,ttttttt) a (H)

171
tgtaccgtta ccc**caacca**a gtgtactaca gaccagtgga tcggtatagt aaccagaaca (R)
ag (Q)
at (H)

actttgtgca tgactgtgtc aacatcacag tcaag**caaca cacagtcacc accaccacca**

agggggagaa cttcaccgaa actgacatca agataatgga gcgagtggtg gagcaaatgt
(SEQ. ID NO. 44)